

# Australian Journal of Ecology

VOLUME 16, 1991

## *Editors*

M. BULL, D. O'DOWD, P. FAIRWEATHER

## *Editorial Board*

D. AYRE, A. BUTLER, B. COLLINS, R. KITCHING, D. MACKAY, R. WHELAN

BLACKWELL SCIENTIFIC PUBLICATIONS  
MELBOURNE OXFORD LONDON EDINBURGH BOSTON  
PARIS BERLIN VIENNA

Published by Blackwell Scientific Publications (Australia) Pty Ltd  
54 University St, Carlton, Victoria 3053, Australia

©1991 Blackwell Scientific Publications.

Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by Blackwell Scientific Publications for libraries and other users registered with the Copyright Clearance Centre (CCC) Transactional Reporting Service, provided that the base fee of \$05.00 per copy is paid directly to CCC, 27 Congress Street, Salem, MA 01970, USA. This consent does not extend to other kinds of copying, such as copying for general distribution for advertising or promotional purposes, for creating new collective works or for resale. Special requests should be addressed to the Publisher.

0307-692X/91 \$05.00

Printed in Australia by Brown Prior Anderson Pty Ltd, Burwood, Victoria

# Contents

## VOLUME 16, NUMBER 1, MARCH 1991

K. FRENCH: Characteristics and abundance of vertebrate-dispersed fruits in temperate wet sclerophyll forest in southeastern Australia	1
D. M. J. S. BOWMAN AND W. J. PANTON: Sign and habitat impact of Banteng ( <i>Bos javanicus</i> ) and pig ( <i>Sus scrofa</i> ), Cobourg Peninsula, northern Australia	15
F. G. NEUMANN: Responses of litter arthropods to major natural or artificial ecological disturbances in mountain ash forest	19
D. LUNNEY, P. EBY AND M. O'CONNELL: Effects of logging, fire and drought on three species of lizards in Mumbulla State Forest on the south coast of New South Wales	33
J. MAGGS: Nitrogen mineralization and nitrification in rainforests of contrasting nutrient status and physiognomic structure near Lake Eacham, northeast Queensland	47
T. D. AULD AND M. A. O'CONNELL: Predicting patterns of post-fire germination in 35 eastern Australian Fabaceae	53
S. K. BROUGHTON AND C. R. DICKMAN: The effect of supplementary food on home range of the southern brown bandicoot, <i>Isodon obesulus</i> (Marsupialia: Peramelidae)	71
S. B. KIRSCHBAUM AND D. G. WILLIAMS: Colonization of pasture by <i>Kunzea ericoides</i> in the Tidbinbilla Valley, ACT, Australia	79
D. B. LINDENMAYER, R. B. CUNNINGHAM, H. A. NIX, M. T. TANTON AND A. P. SMITH: Predicting the abundance of hollow-bearing trees in montane forests of southeastern Australia	91
D. P. ARMSTRONG: Nectar depletion and its implications for honeyeaters in heathland near Sydney	99
D. M. J. S. BOWMAN AND R. J. FENSHAM: Response of a monsoon forest-savanna boundary to fire protection, Weipa, northern Australia	111
R. HORNE AND J. HICKEY: Review. Ecological sensitivity of Australian rainforests to selective logging	119
THESIS ABSTRACTS	131
BOOK REVIEWS	135

## VOLUME 16, NUMBER 2, JUNE 1991

L. E. TWIGG AND B. J. FOX: Recolonization of regenerating open forest by terrestrial lizards following sand mining	137
P. C. J. BARKER: <i>Podocarpus lawrencei</i> (Hook.f.): Population structure and fire history at Goonmirk Rocks, Victoria	149
J. G. MCIVOR AND C. J. GARDENER: Soil seed densities and emergence patterns in pastures in the seasonally dry tropics of northeastern Australia	159
E. A. SUGDEN AND G. H. PYKE: Effects of honey bees on colonies of <i>Exoneura asimillima</i> , an Australian native bee	171
D. SUN: Effect of plant age on tolerance of two grasses to simulated trampling	183
S. PROBER AND M. P. AUSTIN: Habitat peculiarity as a cause of rarity in <i>Eucalyptus paliformis</i>	189
L. HUGHES: Relocation of ant nest entrances: Potential consequences for ant-dispersed seeds	207
N. GIBSON, J. DAVIES AND M. J. BROWN: The ecology of <i>Lagarostrobos franklinii</i> (Hook.f.) Quinn (Podocarpaceae) in Tasmania. 1. Distribution, floristics and environmental correlates	215
N. GIBSON AND M. J. BROWN: The ecology of <i>Lagarostrobos franklinii</i> (Hook.f.) Quinn (Podocarpaceae) in Tasmania. 2. Population structure and spatial pattern	223
A. J. UNDERWOOD, M. J. KINGSFORD AND N. L. ANDREW: Patterns in shallow subtidal marine assemblages along the coast of New South Wales	231
S. C. WARD, J. D. MAJER AND A. M. O'CONNELL: Decomposition of eucalypt litter on rehabilitated bauxite mines	251
THESIS ABSTRACTS	259
BOOK REVIEWS	265

## VOLUME 16, NUMBER 3, SEPTEMBER 1991

A. N. ANDERSEN: Sampling communities of ground-foraging ants: Pitfall catches compared with quadrat counts in an Australian tropical savanna	273
B. J. FOX AND L. E. TWIGG: Experimental transplants of mice ( <i>Pseudomys</i> and <i>Mus</i> ) on to early stages of post-mining regeneration in open forest	281
D. G. WORTHINGTON, M. WESTOBY AND J. D. BELL: Fish larvae settling in seagrass: Effects of leaf density and an epiphytic alga	289
B. R. KAUSHAL AND P. C. JOSHI: Energy dynamics of grasshopper populations in a temperate grassland community in India	295
K. LAZENBY-COHEN AND A. COCKBURN: Social and foraging components of the home range in <i>Antechinus stuartii</i> (Dasyuridae: Marsupialia)	301
D. J. ELDRIDGE AND M. WESTOBY: Recruitment and survival in <i>Atriplex vesicaria</i> populations in semi-arid western New South Wales, 1977-1987	309
F. G. NEUMANN AND K. TOLHURST: Effects of fuel reduction burning on epigeal arthropods and earthworms in dry sclerophyll eucalypt forest of west-central Victoria	315
M. ABENSPERG-TRAUN: Seasonal changes in activity of subterranean termite species ( <i>Isoptera</i> ) in Western Australian wheatbelt habitats	331
H. F. RECHER, R. P. KAVANAGH, J. M. SHIELDS AND P. LIND: Ecological association of habitats and bird species during the breeding season in southeastern New South Wales	337
N. L. ANDREW: Changes in subtidal habitat following mass mortality of sea urchins in Botany Bay, New South Wales	353
W. M. LONSDALE AND R. W. BRAITHWAITE: Assessing the effects of fire on vegetation in tropical savannas	363
G. D. COOK AND M. H. ANDREW: The nutrient capital of indigenous <i>Sorghum</i> species and other understorey components of savannas in north-western Australia	375
G. McDONALD: Oviposition and larval dispersal of the common armyworm, <i>Mythimna convecta</i> (Walker) (Lepidoptera: Noctuidae)	385
R. E. MAJOR: Flocking and feeding in the white-fronted chat <i>Ephianura albifrons</i> : The relationship between diet, food availability and patch selection	395
R. J. TAYLOR: Short Note. Plants, fungi and bettongs: A fire-dependent co-evolutionary relationship?	409
G. CLOSS: Short Note. Multiple definitions of food web statistics: An unnecessary problem for food web research	413
THESIS ABSTRACTS	417
BOOK REVIEW	421

## VOLUME 16, NUMBER 4, DECEMBER 1991

## Ecological Interactions: Proceedings of a Symposium

Guest Editor: P. S. Lake

J. J. BURDON: Fungal pathogens as selective forces in plant populations and communities	423
A. I. ROBERTSON: Plant-animal interactions and the structure and function of mangrove forest ecosystems	433
M. WESTOBY, K. FRENCH, L. HUGHES, B. RICE AND L. RODGERSON: Why do more plant species use ants for dispersal on infertile compared with fertile soils?	445
N. REID: Coevolution of mistletoes and frugivorous birds?	457
D. A. MACKAY: The effects of ants on herbivory and herbivore numbers on foliage of the mallee eucalypt, <i>Eucalyptus incrassata</i> Labill.	471
F. I. NORMAN AND N. NICHOLLS: The Southern Oscillation and variations in waterfowl abundance in southeastern Australia	485
R. L. GOLDINGAY: An evaluation of hypotheses to explain the pattern of sap feeding by the yellow-bellied glider, <i>Petaurus australis</i>	491
R. KARBAN: Induced resistance of <i>Gossypium australe</i> against its most abundant folivore, <i>Bucculatrix gossypii</i>	501
N. J. ENRIGHT AND A. D. WATSON: A matrix population model analysis for the tropical tree, <i>Araucaria cunninghamii</i>	507
J. C. SCANLAN: Woody overstorey and herbaceous understorey biomass in <i>Acacia harpophylla</i> (brigalow) woodlands	521
S. H. BURLEIGH AND J. O. DAWSON: Effects of sodium chloride and melibiose on the <i>in vitro</i> growth and sporulation of <i>Frankia</i> strain HFPCe13 isolated from <i>Casuarina cunninghamiana</i>	531
G. D. COOK: Short Note. Effects of fire regimen on two species of epiphytic orchids in tropical savannas of the Northern Territory	537
J. K. VANCLAY: Comment. Ecological sensitivity of Australian rainforests to selective logging	541
R. HORNE: Reply. Ecological sensitivity of Australian rainforests to selective logging	542
THESIS ABSTRACTS	543
BOOK REVIEW	548
REFEREES	551
AUTHOR INDEX	552

